Initial Draft Report of No Action Alternative

November 2004

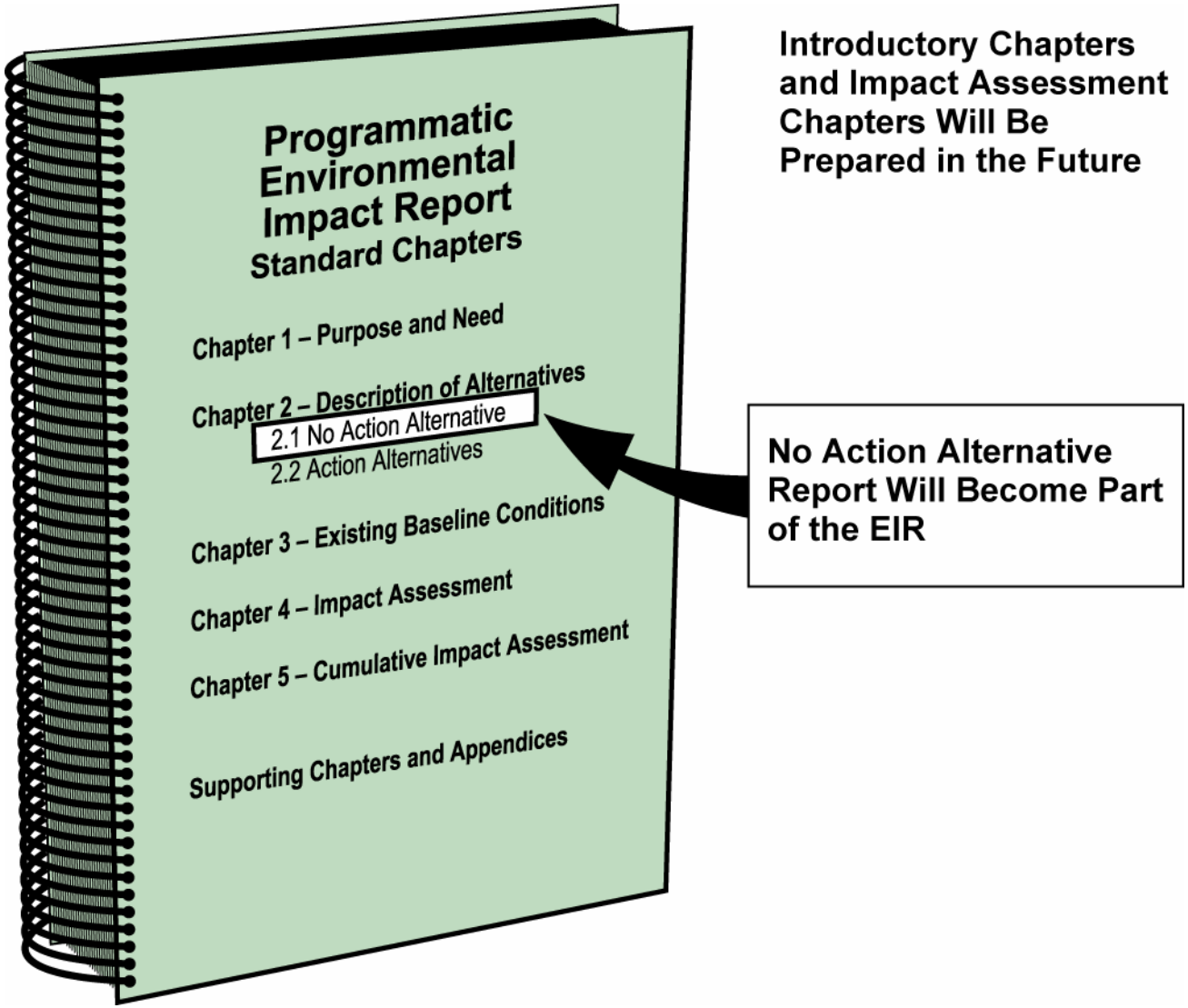
Presentation Outline

- **Development of Initial Draft Report**
- **Study Period**
- **Purpose and Definition of No Action Alternative**
- **No Action Alternative Conditions**
  - Land Use
  - Salton Sea Elevation and Salinity
  - Biological Resources
- **Cumulative Impact Analysis Assumptions**

Development of Initial Draft Report of No Action Alternative

- **Discussed Basis of No Action Alternative at September 8 Advisory Committee Meeting**
  - Study Period and Study Area
  - Criteria to define No Action Alternative
- **Preparing Initial Draft Report**
  - Compiled existing readily available information
  - Identified missing information
- **Next Steps**

Initial Draft No Action Alternative Report Prepared to be Part of PEIR



CEQA Guidelines Definition of the No Action Alternative

- **The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published..., as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.**
- **CEQA Guidelines 15126.6(e).**

The No Action Alternative Requires Several Elements

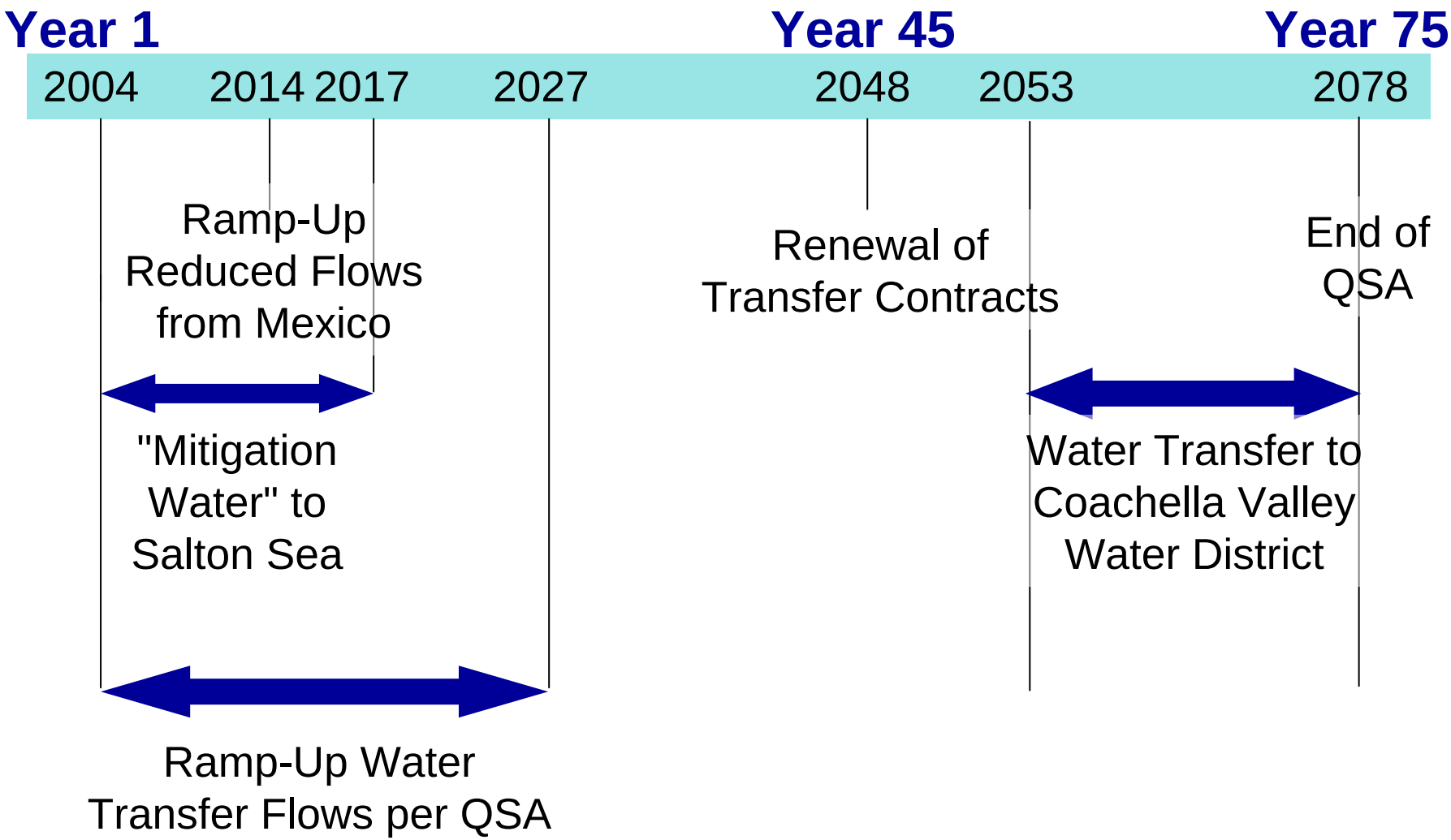
- **Existing Baseline Conditions in early 2004**
  - Discussed at September 8 Advisory Committee meeting
- **Definition of Study Period**
  - 45 or 75 Years???
- **Description of Future Conditions at the end of the Study Period without implementation of Project**

Identification of Study Period

Items Considered for Identification of Study Period

- **45 Years (Until 2048)**
  - Initial Contract Period for Imperial Irrigation District/San Diego County Water Agency Water Transfer - Renewals assumed for 30 more years
- **75 Years (Until 2078)**
  - Study Period for Quantification Settlement Agreement Environmental Documentation
  - Study Period for Imperial Irrigation District/San Diego County Water Agency Water Transfer Environmental Documentation
- **50 Years (Until 2053)**
  - Reasonably Foreseeable Changes in Inflows

QSA Actions and Associated Changes Continue over 75 Years



Other Changes in Salton Sea Watershed in Next 75 Years

- **Biological resources will change with salinity concentrations**
- **Local land use plans project build-out conditions around 2020**
- **Population projections by State Department of Finance through 2050**
- **Reasonably foreseeable changes in agricultural market drivers cannot be predicted for the long-term**

Recommendation: Use 75 Year Study Period (2078)

- **Changes in inflows and elevations will continue to change for next 50 Years**
- **Salinity will increase through 75 Years**
- **Conditions projected for 75 Years in QSA Analysis**
- **Salton Sea Ecosystem Management Plan is being conducted due to implementation of QSA based upon 75 Year Study Period**

Basis of No Action Alternative

Purpose of No Action Alternative in PEIR

- **Future Baseline Condition**
  - For comparison with each alternative to determine impacts
  - As guidance to develop mitigation measures to minimize or eliminate adverse impacts as compared to the No Action Alternative conditions
- **Compared to Existing Baseline Conditions**
  - To identify changes that would occur over the Study Period without the Project

The No Action Alternative includes.....

- **Existing conditions plus reasonably foreseeable actions including**
  - Projected future growth and land use
  - Facility and projects

What are the criteria for projects in the No Action Alternative?

- **Implemented or approved as of February 27, 2004**
- **If not implemented:**
  - Have environmental permits been secured?
  - Has funding been secured?
  - Will it effect the Salton Sea Ecosystem Management Plan?
- **Projects that do not meet criteria - Include in Cumulative Analysis**

Preliminary List of Projects in No Action Alternative

- **QSA Related Projects**
  - IID Water Conservation and Transfer Project and other actions
- **QSA Related Mitigation Measures**
  - SWRCB WRO 2002-13
- **Regional Projects**
- **Adopted Total Maximum Daily Loads**
- **Land Use Plans**
- **See Table (Handout)**
- **Others to be Considered?**

Examples of Projects not included in No Action Alternative

- **To be addressed in Cumulative Analysis**
  - Planned Total Maximum Daily Loads Requirements
  - New River Wetlands Expanded Project
  - Future Geothermal development
  - Climate Change/Global Warming

Relationship of No Action Alternative to Action Alternatives

- **No Action Alternative conditions will be constant in Action Alternatives - <u>EXCEPT</u>:**
  - When Action Alternatives change assumptions
    - *Changes in inflows due to additional transfers specified in legislation (ie, 1,600,000 acre-feet)*
    - *Changes in salinity due to alternative concepts*
- **Secondary Impacts would be evaluated in Cumulative Impacts**

Brief Description of No Action Alternative Conditions

- **Land Use**
- **Salton Sea Elevation and Salinity**
- **Biological Resources**

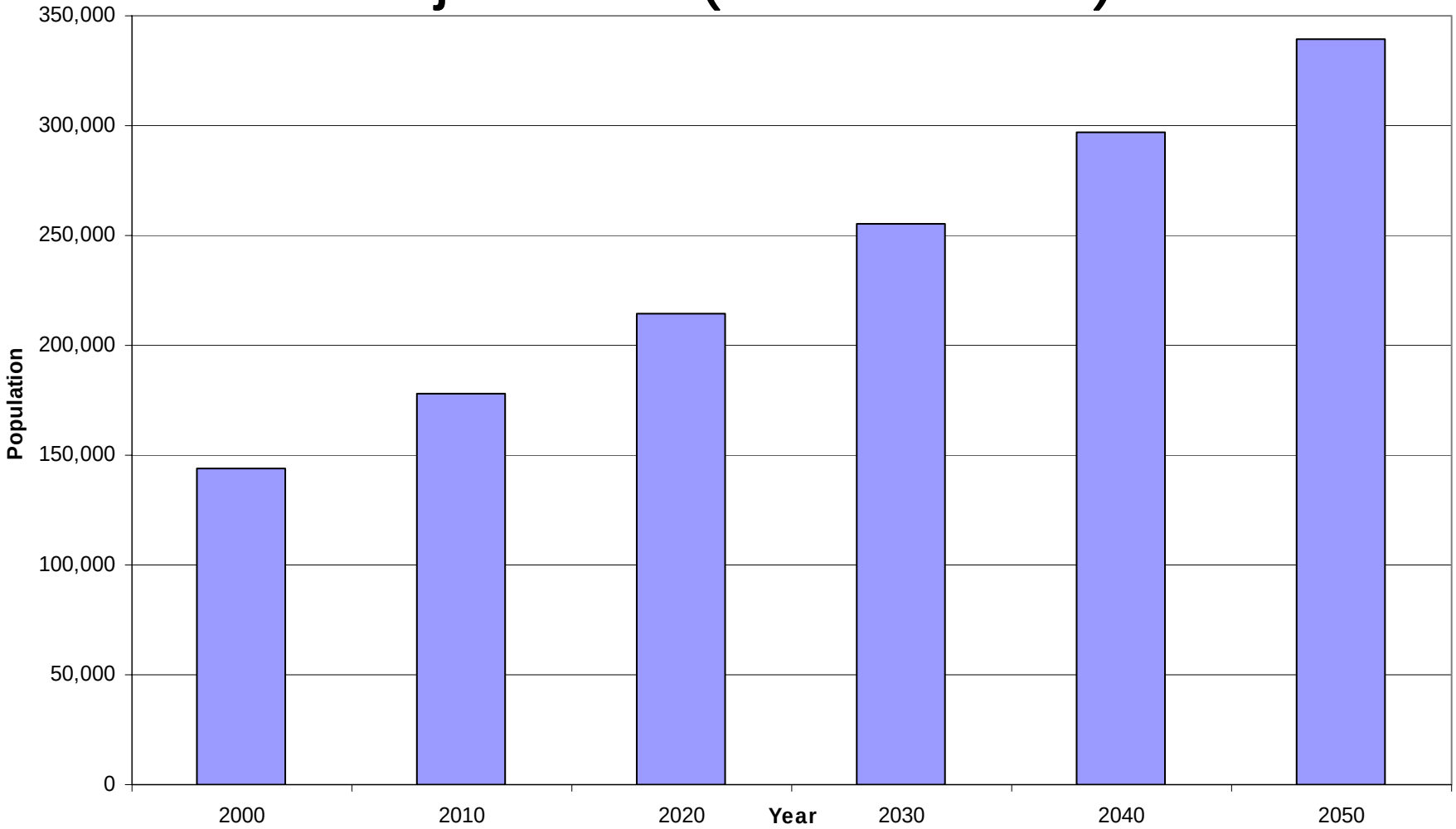
Land Use Changes Foreseen under the No Action Alternative

- **Non-agricultural**
- **Agricultural**

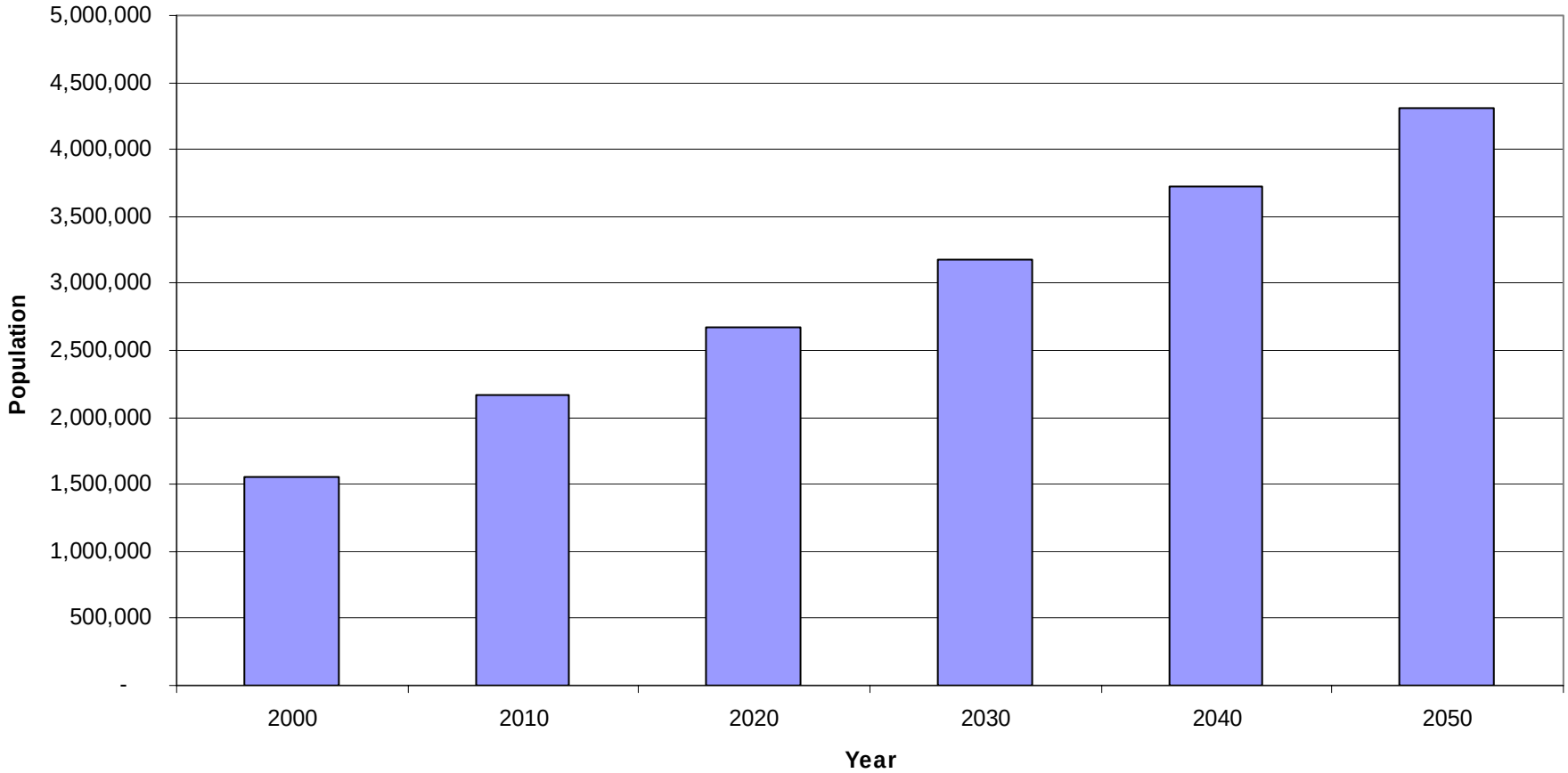
Non- Agricultural Land Use

- **General Plans - Build-Out by 2020**
- **Imperial County**
  - Colonias
- **Riverside County**
- **Desert Protection Plan**
- **Projected Populations**

Imperial County - Population Projection (2000-2050)



Riverside County - Population Projection (2000-2050)



Agricultural Land Use

- **Based on QSA and IID Water Conservation and Transfer Project agricultural projections**
- **Assumes historic cropping pattern fluctuations in the future (minus areas affected by transferred water)**

Changes to Salton Sea Elevation and Salinity under the No Action Alternative

Sources of Inflow to Salton Sea

- **Imperial Irrigation District**
  - Flows in the New and Alamo Rivers and Agricultural Drains
- **Mexico**
  - Flows in New and Alamo Rivers
- **Coachella Valley Water District**
  - Surface water and groundwater flows into the northern Salton Sea
- **Rainfall on Salton Sea**
- **Runoff from other portions of watershed**

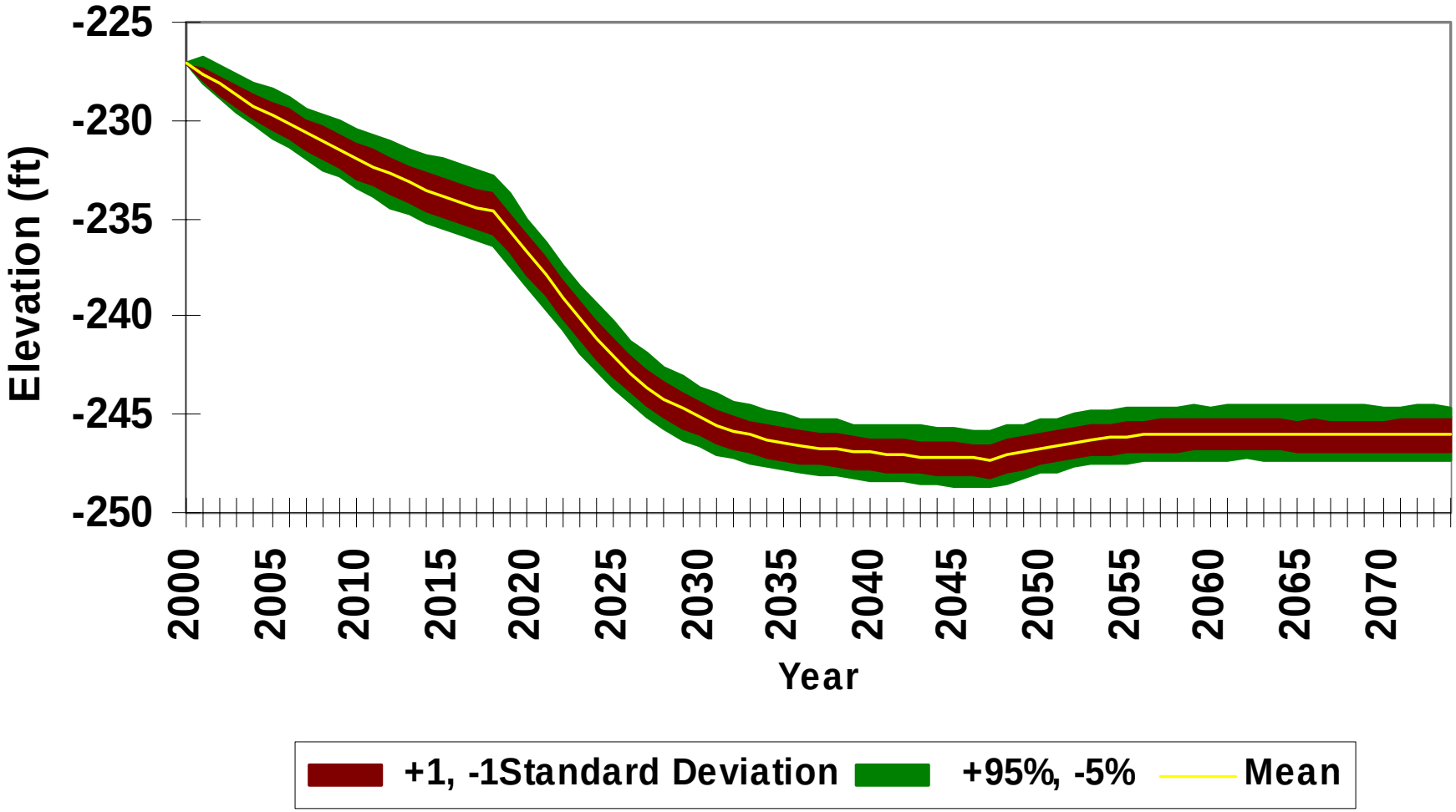
No Action Alternative Assumptions Different than QSA Assumptions

- **QSA Assumptions plus following changes**
  - Coachella Valley Water District Use of Transferred Water
    - *Groundwater Recharge versus Direct Use*
  - Inflows from Mexico
    - *Mexicali Wastewater flows diverted from Salton Sea beginning in 2006*
    - *Startup of power plants will reduce inflows*
    - *Assume long-term Colorado River operations will not include surplus flows to Mexico*
  - Others to be Considered?

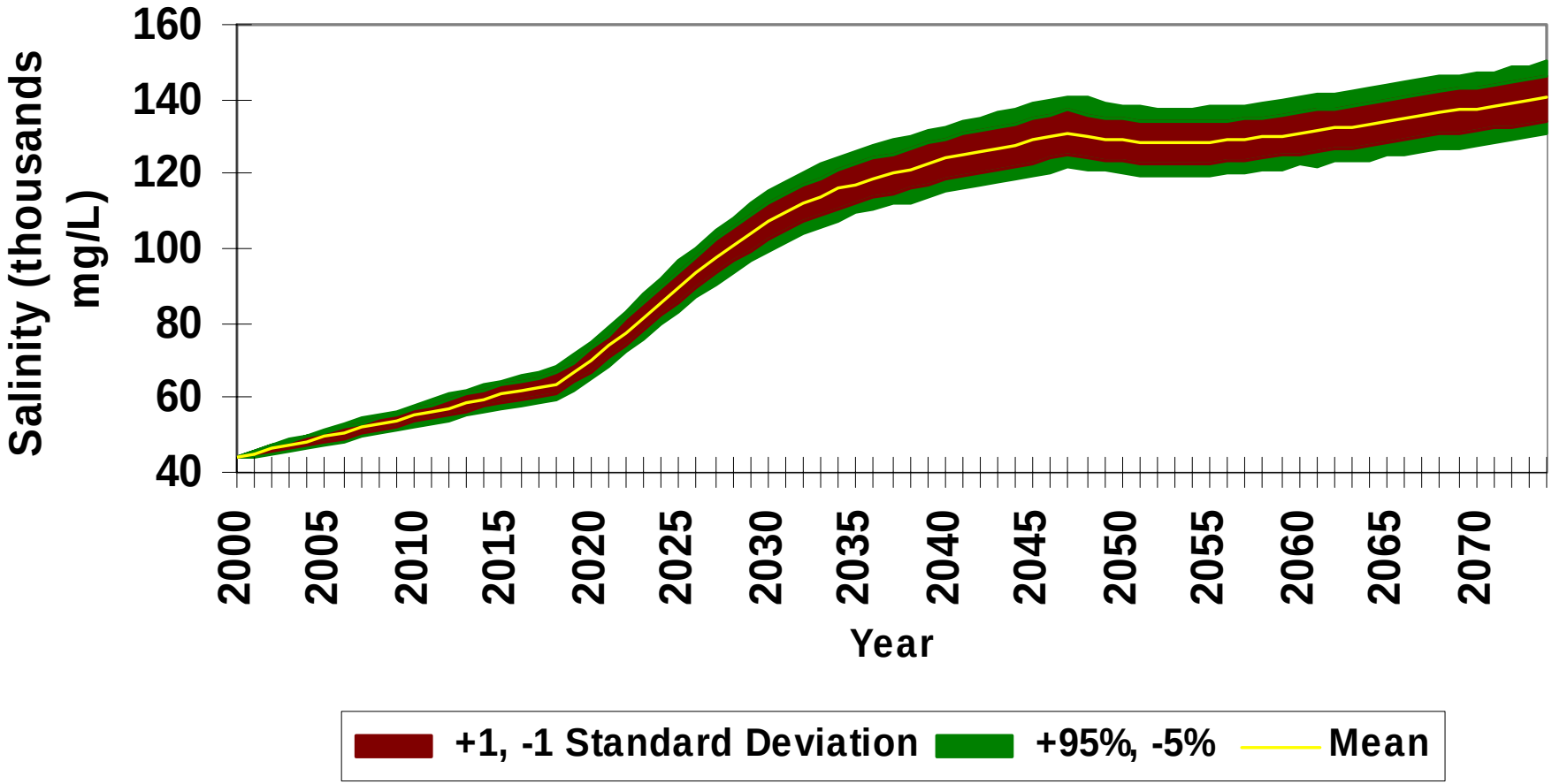
Preliminary SSAM model runs indicate conditions under the No Action Alternative

- **Elevation**
  - Existing Conditions = -228 feet mean sea level
  - No Action Alternative Conditions = -246 feet mean sea level
- **Salinity**
  - Existing Conditions = 46,000 mg/L
  - No Action Alternative Conditions = 140,000 mg/L

No Action Alternative
Salton Sea Surface Elevation



No Action Alternative
Salton Sea Salinity



Water Quality - Still being developed

- **In General...**
  - **Adopted Total Maximum Daily Loads will improve water quality of New and Alamo Rivers and reduce Total Dissolved Solids**
  - **Mexicali Wastewater Improvements will result in reduced pathogens, phosphorous, orthophosphates, total suspended solids, and biological oxygen demand in the New River**

How will the Salton Sea Ecosystem Transition under the No Action Alternative?

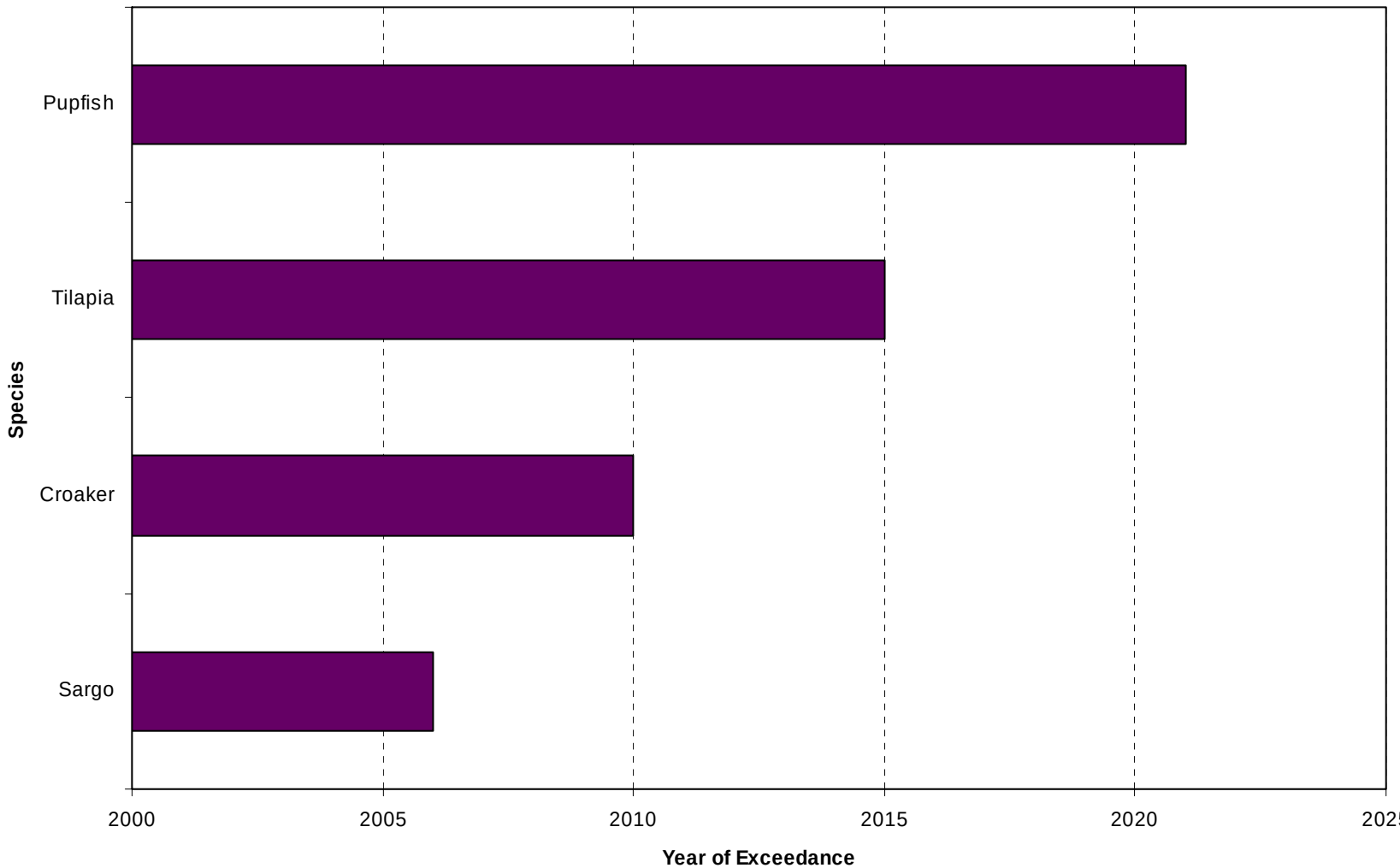
Factors Influencing Biological Change at the Salton Sea

- **Hydrologic Changes**
  - Reduced inflow
  - Reduced Salton Sea surface area
  - Reduced shoreline length
  - Reduced depth
- **Water Quality Changes**
  - Increased salinity
  - Potentially increased selenium

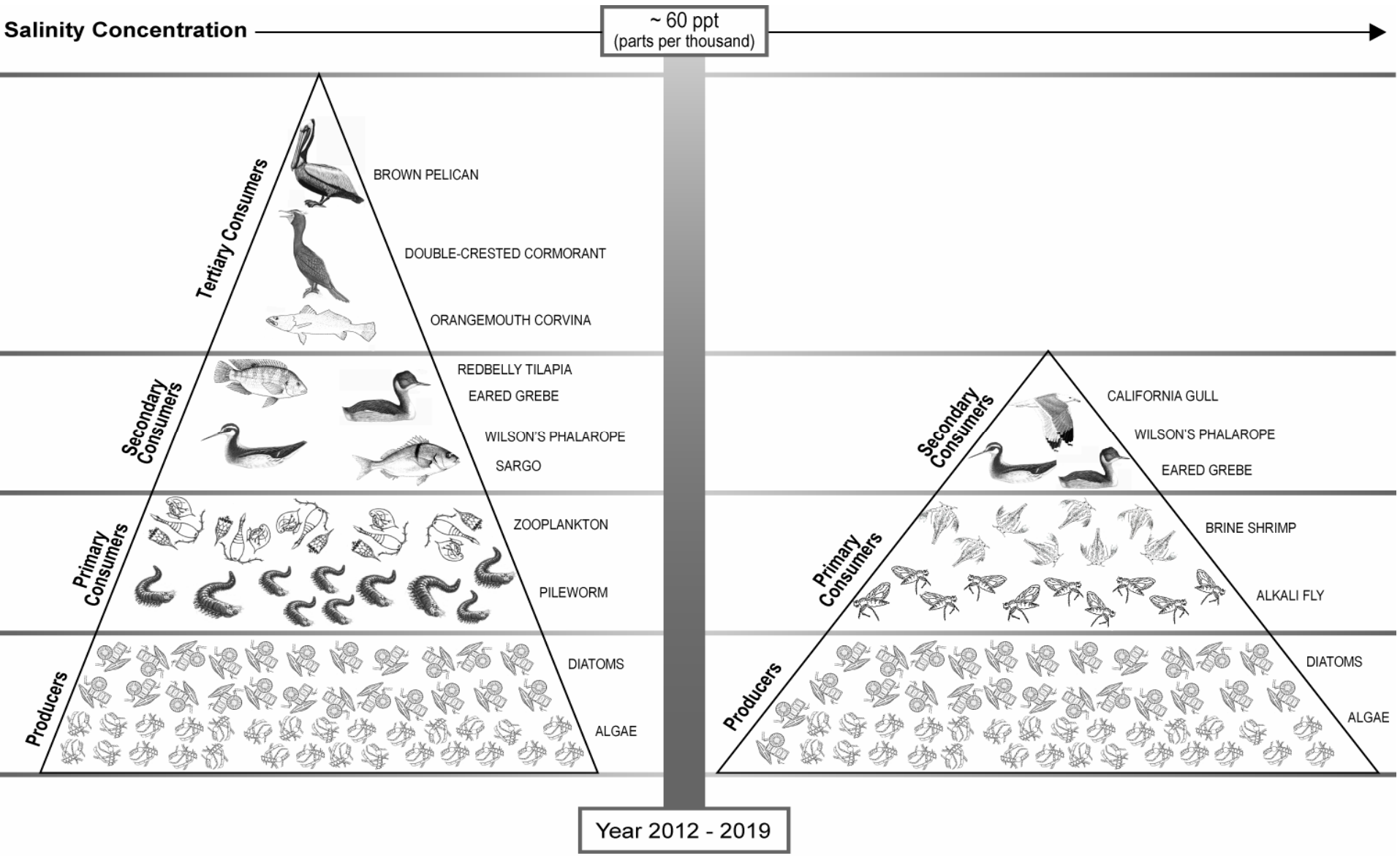
Salinity as Indicator of Biological Change

- **Salinity-sensitive fish and invertebrates will become less abundant and less diverse**
- **Fish will disappear from most of the Salton Sea**
- **Ecosystem will shift toward more salinity-tolerant invertebrates, similar to Mono Lake and Great Salt Lake**
- **Fish-eating birds will decline, but invertebrate-eaters may increase**

Salinity as Indicator of Biological Change



Ecosystem Transition



Sources of Uncertainty

- **Synergistic effects of other factors (e.g., selenium, nutrient, dissolved oxygen)**
- **Ecosystem response to changes (loss) of components**
- **Disease (crowding and stress)**
- **Effects of increased concentration of other contaminants (e.g. selenium and arsenic)**

Cumulative Impact Analysis Assumptions

Cumulative Impact Analysis will Consider Other Conditions

- **Projects and Policies not included in No Action Alternative due to uncertainties**
- **Other potential changes that could occur**
  - Changes in inflows due to Best Management Practices used for Total Maximum Daily Load requirements
  - Responses to climate change or drought
  - Changes in habitat in other areas used by migratory birds that also use the Salton Sea

Next Steps

- **Distribute Initial Draft of No Action Alternative Report for review and comment**
- **Modify assumptions for No Action Alternative based upon comments**
- **Develop Cumulative Impact Assessment Assumptions**
- **Use definition of No Action Alternative as one basis for identification of Action Alternatives**